

# Watershed Restoration FACTSHEET: Sligo Creek Recreation Center Low Impact Development (LID) Project

## Sligo Creek Recreation Center Project Facts:

**Project Drainage Area:** .70 acres  
**Project Imperviousness:** 67%  
**Property Ownership:** Maryland-National Capital Park and Planning Commission

### Restoration Goals:

To filter and absorb stormwater runoff from an existing site and increase groundwater recharge capacity. The LID approach incorporates a well drained soil that supports native plants and provides ecological and aesthetic benefits.

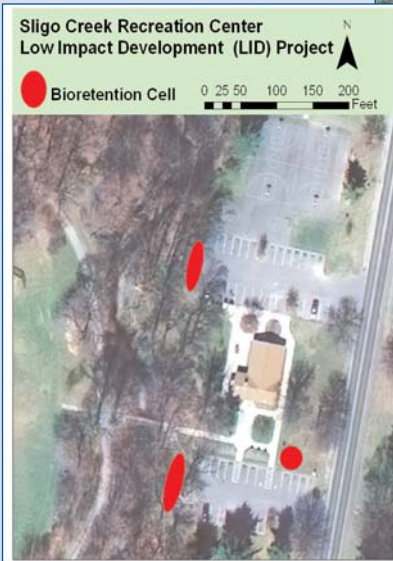
### Estimated Costs:

\$127,000

**Funding Source:** Funded in part by a grant from the Environmental Protection Agency

**Project Status:** Complete

*For complete technical and professional specifications, (coming soon) visit our website (see reverse page)*



Three bioretention cells or "rain gardens" have been designed and constructed at the Sligo Creek Recreation Center



## Sligo Creek Watershed Restoration

The *Anacostia Watershed Agreement* of 1987 committed local and state agencies to restore aquatic habitat and water quality in streams that were seriously degraded by uncontrolled stormwater runoff from prior urbanization. The Sligo Creek Watershed is one of four major watersheds draining to the Anacostia River.


Since 1990, the Department of Environmental Protection (DEP) has helped meet the

goals of the *Agreement* by implementing more than a dozen projects to add new stormwater runoff controls to 1,359 acres of upper watershed drainage, and restore habitat features in five miles of stream.

More information on the Anacostia Watershed Agreement and watershed restoration efforts in the Sligo Creek Watershed can be found at our website (see reverse) or by contacting the Watershed Management Division at 240.777.7713.

## Low Impact Development

Construction of new stormwater controls and stream enhancement projects have helped restore the basic ecology long lost in many urban watersheds. In highly developed areas, however, opportunities to construct effective stormwater management facilities — which would reduce stormwater flows to pre-development levels — are extremely difficult to identify and implement due to the lack of space.

Low Impact Development is an emerging stormwater management practice in new developments or in highly developed urban watersheds without stormwater control. LID strives to reduce erosive stormwater runoff and pollutants to receiving streams by maximizing water infiltration on site, resulting in many smaller, on-lot stormwater treatment areas instead of one large structure. Infiltration is accomplished using non-structural techniques such as bioretention. 

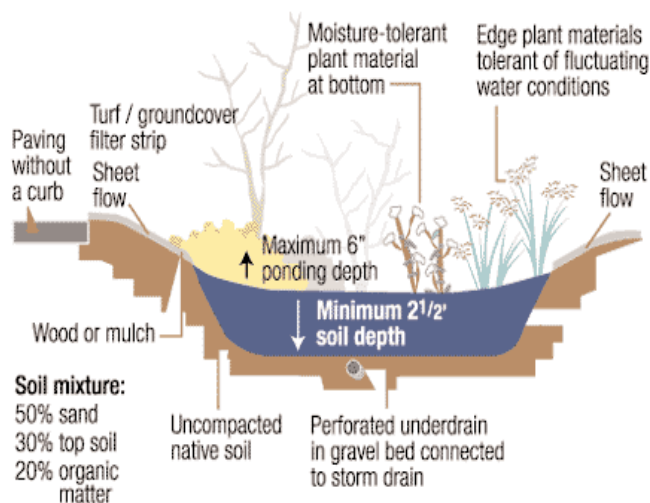


Diagram of typical bioretention cell design including underdrain

Source: Puget Sound Action Team, 2005



Lushly vegetated bioretention cells developed alongside parking lots can help reduce the quantity of runoff, while treating a host of pollutants.

A bioretention cell consists of a porous soil mix of sand, top soil, and compost covered with a layer of organic mulch. The site is also heavily planted with a range of native species well adapted to moist soil conditions, from small trees and shrubs around the perimeter

of the cell to herbaceous plants and grasses.

As stormwater runoff moves through the mulch layer into the well-drained planting mix, surface pollutants are trapped or filtered out. At the same time, plant root systems and microscopic biological activity

in the soil provides additional treatment and absorption of nutrients, metals, and other pollutants. The excess water recharges groundwater supplies and, in some cases, is received by an underdrain system. Groundwater recharge is essential for maintaining healthy base flows in streams, especially during drought conditions. Stormwater flows are thus controlled sooner, and/or higher in the watershed, before runoff concentrates and causes erosive damage to receiving streams.

Montgomery County encourages the use of LID sustainable design techniques for new and re-development to minimize runoff and to reduce pollution in the stream system. While recognizing the importance of traditional best management practices such as stormwater ponds, these new techniques offer flexibility by providing alterna-

tive methods of treatment and control on confined redevelopment sites. Collectively, these efforts will foster further improvements in water quality in urban watersheds.

### Proposed Project

The Sligo Creek LID project is a pilot demonstration showing how three bioretention cells are readily incorporated into an existing parkland setting without disturbing the natural feel of the landscape. Instead, the bioretention cells will actually mirror the surrounding environment, expand and diversify the quality of habitat, while significantly protecting the park's aquatic, aesthetic, and natural resources.

For further information on LID or the Sligo Creek project, visit our website (below) or contact DEP at 240.777.7700. Additional information and examples of bioretention can be found at [rainscapes.org](http://rainscapes.org).



An artist's rendering of the Sligo Creek Recreation Center bioretention pond when fully established with native plants.

follow web link for more information

see online glossary [www.montgomerycountymd.gov/content/dep/restoration/glossary.asp](http://www.montgomerycountymd.gov/content/dep/restoration/glossary.asp)

### For more information:



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